

## **AXIAL LEADED SILICON RECTIFIER DIODES**

VOLTAGE RANGE: 1250V CURRENT: 1.0 A

## **Features**

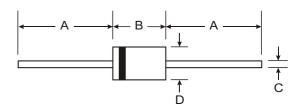
- Molded case feature for auto insertion
- High current capability
- Low leakage current
- High surge capability
- High temperature soldering guaranteed:
   250 °C/10sec/0.375" (9.5mm) lead length at 5 lbs
- tension

## **Mechanical Data**

- Case:JEDEC DO -41,molded plastic
- Terminals: Axial lead ,solderable per MIL- STD-202,Method 208
- Polarity: Color band denotes cathode
- Weight: 0.012ounces, 0.34 grams
- Mounting position: Any







DO-41				
Dim	Min	Max		
Α	25.40	_		
В	4.06	5.21		
С	0.71	0.864		
D	2.00	2.72		
All Dimensions in mm				

## Maximum Ratings and Electrical Characteristics @ T<sub>A</sub> = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	BY127M	Unit
Maximum recurrent peak reverse voltage	V <sub>RRM</sub>	1250	V
Maximum RMS voltage	V <sub>RMS</sub>	875	V
Maximum DC blocking voltage	V <sub>DC</sub>	1250	V
Maximum average forw ard rectified current 9.5mm lead length, @T <sub>A</sub> =75°C	I <sub>F(AV)</sub>	1.0	А
Peak forw ard surge current  8.3ms single half-sine-w ave superimposed on rated load @T <sub>J</sub> =125℃	I <sub>FSM</sub>	30.0	А
Maximum instantaneous forw ard voltage  @ 1.0 A	V <sub>F</sub>	1.1	V
Maximum reverse current @T <sub>A</sub> =25°C	I <sub>R</sub>	5.0	^
at rated DC blocking voltage @T <sub>A</sub> =100°C		50.0	μА
Typical junction capacitance (Note1)	С	10	pF
Typical thermal resistance (Note2)	$R_{\theta JA}$	50	°C/W
Operating junction temperature range	T <sub>J</sub>	- 55 <b>+</b> 150	$^{\circ}\mathbb{C}$
Storage temperature range	T <sub>STG</sub>	- 55 <b>+</b> 150	$^{\circ}\mathbb{C}$

NOTE: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

<sup>2.</sup> Thermal resistance from junction to ambient at 0.375"(9.5mm) lead length, P.C.board mounted



FIG.1 - TYPICAL FORWARD CURRENT DERATING CURVE

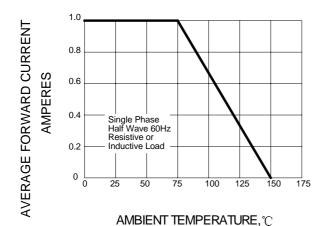


FIG.2 - TYPICAL INSTANTANEOUS FORWARD **CHARACTERISTICS** 

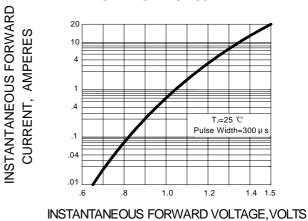


FIG.3 - MAXIMUM NON-REPETITIVE FORWARD

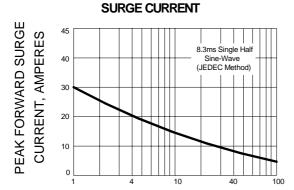
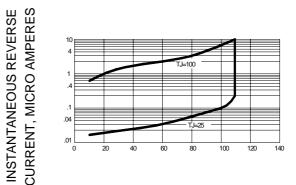


FIG.4 - TYPICAL REVERSE CHARACTERISTICS



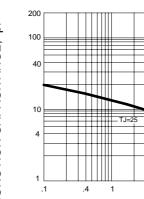
NUMBER OF CYCLES AT 60Hz

PERCENT OF RATED PEAK REVERSE VOLTAGE, %

FIG.5 - TYPICAL JUNCTION CAPACITANCE

10

40 100



Ы JUNCTION CAPACITANCE,